

REMARKS

A Final Rejection was mailed in the present case on January 27, 2010, making a response due on or before April 27, 2010. This Response is being submitted, along with a Petition for Extension of Time Within the First Month, and the required extension fee of \$130.00 for a large entity. The fee for the RCE is also included. No additional fee is thought to be due at this time. If any additional fee is due for the continued prosecution of this application, please charge the same to Applicant's Deposit Account No. 50-2555 (Whitaker, Chalk, Swindle & Sawyer, LLP).

In the latest Office Action, the Examiner has continued the rejection of Claims 1-6 under 35 U.S.C. §103(a) as being "obvious" over *Huege et al.* (US 5616283). In a previous response filed in the case, Applicant argued that the specific surface area disclosed by *Huege et al.*, which broadly encompasses the claimed range, only refers to external specific surface area, while the BET specific surface area recited in the instant application includes internal specific surface area. In support of this position, Applicant submitted the Declaration of Professor Jean-Paul Pirard, an expert on specific surface area and porosity measurements. However, the Examiner has countered Applicant's argument on the basis that no evidence has been submitted showing that the solid matter in the *Huege et al.* reference is, in fact, porous. The Examiner argues that, with the solid matter in *Huege et al.* being non-porous, or with negligible porosity, the specific surface area of *Huege et al.* will read on the claimed specific surface area recited in the instant claims.

The Examiner argues further that the previously mentioned Declaration of Professor Jean-Paul Pirard is not sufficient to overcome this grounds of rejection, since the Declaration only shows the difference between the specific surface area and BET specific surface area in a porous matter. However, if the solid matter in *Huege et al.* is non-porous, or with negligible porosity, the specific surface area of *Huege et al.* will continue to read on the claimed specific surface area recited in Applicant's pending claims.

In response to the Examiner's argument, Applicant previously submitted copies of pages 194-201 of the "Boynton Treatise": "*Chemistry and Technology of Lime and Limestone.*" This particular treatise is considered a fundamental text by those skilled in the limestone industry which is used as a reference book and teaching tool by engineers, scientists and others in the relevant industry. This treatise was cited for its teaching in Table 6-2 on page 173 and also to page 195, that quicklime has a degree of porosity which varies generally from a porosity of about 18 to 54 %. It is also well known by those skilled in the relevant industry that slaked lime is more porous than quicklime.

The Examiner has countered Applicant's arguments with the position that "surface area is a function of particle size, thus it would be appreciated that the particle size disclosed by *Huege et al.* corresponding to a surface area reads on the claimed range absent specific evidence to the contrary" (Applicant's emphasis). (Office Action of January 27, 2010, page 3). The Examiner goes on to argue that "even though the solid mater in *Huege et al.* has porosity to some extent, no evidence is showing that the porosity in the solid matter of *Huege et al.* in fact results in a BET surface area fall beyond the claimed range" (Applicant's emphasis). (Office Action of January 27, 2010, page 4).

The undersigned spoke briefly by telephone with the Examiner on February 16, 2010, in an attempt to narrow the issues being argued. It was the Examiner's position, as understood by Applicant's representative that whatever the Boynton treatise teaches, it isn't necessarily descriptive of the *Huege et al.* material. We then discussed the possibility of submitting comparative evidence on these points. In other words, Applicant would have someone in the lab make up a sample of material according to the exact teachings of the *Huege et al.* reference. The BET surface area measurement of the sample would then be compared to the BET measurements of material made according to the teaching of the present invention. The attached "Declaration" is Applicant's attempt to satisfy the Examiner's contentions on these points.

The results of the comparative testing conducted by Applicant including measurements of the BET specific surface area, clearly show that, starting from standard (common) industrial Ca(OH)₂, the

material made according to the teaching of the *Huege et al.* reference does not show a BET specific surface area lower than 10 m²/g, as in Applicant's claimed invention. Further, the materials compared according to the teachings of the present invention show BET surface area measurements of 7m²/g and 8m²/g, respectively, as explained in the accompanying Declaration. Accordingly, the differences in the teaching of the *Huege et al.* reference and that of the present invention should be readily apparent.

Applicant would also request that non-elected method Claim 7 now be rejoined in the case, since that method claim contains all of the limitations of the now allowable composition Claim 1.

Based upon the above arguments and additionally supplied comparative test evidence, Claims 1-6 and non-elected Claim 7 are now thought to be allowable over the art of record and an early notification of the same would be appreciated.

Respectfully submitted,

Date: April 29, 2010

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